ELSEVIER

Forest Ecology and Management 196 (2004) 451–452

Forest Ecology and Management

www.elsevier.com/locate/foreco

Contents of *Forest Ecology and Management*, Volume 196

VOLUME 196, ISSUE 1 12 JULY 2004

Special Issue: The Harvard Forest (USA) Nitrogen Saturation Experiment: Results from the First 15 Years

Editorial

Chronic nitrogen additions at the Harvard Forest (USA): the first 15 years of a nitrogen saturation experiment
J.D. Aber and A.H. Magill (Durham, NH, USA) 1

Regular articles

Ecosystem response to 15 years of chronic nitrogen additions at the Harvard Forest LTER, Massachusetts, USA
A.H. Magill, J.D. Aber (Durham, NH, USA), W.S. Currie, K.J. Nadelhoffer (Ann Arbor, MI, USA), M.E. Martin, W.H. McDowell (Durham, NH, USA), J.M. Melillo and P. Steudler (Woods Hole, MA, USA) 7

Effects of chronic nitrogen amendment on dissolved organic matter and inorganic nitrogen in soil solution
W.H. McDowell, A.H. Magill, J.A. Aitkenhead-Peterson, J.D. Aber, J.L. Merriam (Durham, NH, USA) and S.S. Kaushal (Millbrook, NY, USA) 29

Chronic nitrogen additions reduce total soil respiration and microbial respiration in temperate forest soils at the Harvard Forest
R.D. Bowden (Meadville, PA, USA), E. Davidson, K. Savage (Woodshole, MA, USA), C. Arabia (Meadville, PA, USA) and P. Steudler (Woods Hole, MA, USA) 43

Short-term soil respiration and nitrogen immobilization response to nitrogen applications in control and nitrogen-enriched temperate forests
P. Micks (Woods Hole, MA, USA), J.D. Aber (Durham, NH, USA), R.D. Boone (Fairbanks, AK, USA) and E.A. Davidson (Woods Hole, MA, USA) 57

Decomposing litter as a sink for ^{15}N-enriched additions to an oak forest and a red pine plantation
P. Micks (Woods Hole, MA, USA), M.R. Downs (West Roxbury, MA, USA), A.H. Magill (Durham, NH, USA), K.J. Nadelhoffer (Ann Arbor, MI, USA) and J.D. Aber (Durham, NH, USA) 71

Decadal-scale fates of ^{15}N tracers added to oak and pine stands under ambient and elevated N inputs at the Harvard Forest (USA)
K.J. Nadelhoffer (Ann Arbor, MI, USA), B.P. Colman (Santa Barbara, CA, USA), W.S. Currie (Ann Arbor, MI, USA), A. Magill and J.D. Aber (Durham, NH, USA) 89

Redistributions of ^{15}N highlight turnover and replenishment of mineral soil organic N as a long-term control on forest C balance
W.S. Currie, K.J. Nadelhoffer (Ann Arbor, MI, USA) and J.D. Aber (Durham, NH, USA) 109

Gross nitrogen process rates in temperate forest soils exhibiting symptoms of nitrogen saturation
R.T. Venterea (Millbrook, NY, USA and St. Paul, MN, USA), P.M. Groffman (Millbrook, NY, USA), L.V. Verchot (Millbrook, NY, USA and Nairobi, Kenya), A.H. Magill and J.D. Aber (Durham, NH, USA) 129

Response of soil microbial biomass and community composition to chronic nitrogen additions at Harvard forest
J.E. Compton, L.S. Watrud, L. Arlene Porteous (Corvallis, OR, USA) and S. DeGrood (Davis, CA, USA) 143

Chronic nitrogen enrichment affects the structure and function of the soil microbial community in temperate hardwood and pine forests
S.D. Frey, M. Knorr (Durham, NH, USA), J.L. Parrent (Durham, NC, USA) and R.T. Simpson (Durham, NH, USA) 159

Effects of chronic N additions on tissue chemistry, photosynthetic capacity, and carbon sequestration potential of a red pine (*Pinus resinosa* Ait.) stand in the NE United States
G.A. Bauer (Cambridge, MA, USA and Köln, Germany), F.A. Bazzaz (Cambridge, MA, USA), R. Minocha, S. Long, A. Magill, J. Aber and G.M. Berntson (Durham, NH, USA) 173

doi:10.1016/S0378-1127(04)00421-9

VOLUME 196, ISSUES 2–3 **26 JULY 2004**

Hydrochemistry and hydrology of forest riparian wetlands
G. Jacks and A.-C. Norrström (Stockholm, Sweden) 187
The várzea forests in Amazonia: flooding and the highly dynamic geomorphology interact with natural forest succession
F. Wittmann, W.J. Junk (Plön, Germany) and M.T.F. Piedade (Manaus, Brazil) 199
Effects of previous land-use on plant species diversity in semi-natural and plantation forests in a warm-temperate region in southeastern Kyushu, Japan
S. Ito, R. Nakayama (Miyazaki, Japan) and G.P. Buckley (Kent, UK) 213
A neural network approach to identify forest stands susceptible to wind damage
M. Hanewinkel (Freiburg, Germany), W. Zhou (Umeå, Sweden) and C. Schill (Freiburg, Germany) 227
Estimation of forest stand volumes by Landsat TM imagery and stand-level field-inventory data
H. Mäkelä and A. Pekkarinen (Helsinki,, Finland) 245
Nursery cultivation regimes, plant functional attributes, and field performance relationships in the Mediterranean oak *Quercus ilex* L.
P. Villar-Salvador (Guadalajara, Spain), R. Planelles, E. Enríquez (Madrid, Spain) and J. Peñuelas Rubira (Guadalajara, Spain) 257
Age structure of *Picea schrenkiana* forest along an altitudinal gradient in the central Tianshan Mountains, northwestern China
T. Wang (Wuhan, PR China and Beijing, PR China), Y. Liang, H. Ren (Beijing, PR China), D. Yu (Wuhan, PR China), J. Ni and K. Ma (Beijing, PR China) 267
Nitrogen-fixing and vesicular–arbuscular mycorrhizal symbioses in some tropical legume trees of tribe Mimoseae
C.M. Patreze and L. Cordeiro (Rio Claro, Brazil) 275
Substrate-associated seedling recruitment and establishment of major conifer species in an old-growth subalpine forest in central Japan
A. Mori, E. Mizumachi, T. Osono and Y. Doi (Kyoto, Japan) 287
Native plant regeneration and introduction of non-natives following post-fire rehabilitation with straw mulch and barley seeding
R. Kruse, E. Bend and P. Bierzychudek (Portland, OR, USA) 299
Colonisation of podocarp coarse woody debris by decomposer basidiomycete fungi in an indigenous forest in the central North Island of New Zealand
I.A. Hood, P.N. Beets, M.O. Kimberley, J.F. Gardner, G.R. Oliver and S. Pearce (Rotorua, New Zealand) 311
Anthropogenic soil degradation affects seed viability in *Polylepis australis* mountain forests of central Argentina
D. Renison (Córdoba, Argentina), I. Hensen (Halle/Saale, Germany) and A.M. Cingolani (Córdoba, Argentina) 327
Soil emissions of nitric oxide in two forest watersheds subjected to elevated N inputs
R.T. Venterea, P.M. Groffman (Millbrook, NY, USA), M.S. Castro (Frostburg, MD, USA), L.V. Verchot (Nairobi, Kenya), I.J. Fernandez (Orono, ME, USA) and M.B. Adams (Parsons, WV, USA) 335
The influence of canopy gaps on overstory tree and forest growth rates in a mature mixed-age, mixed-species forest
B.S. Pedersen and J.L. Howard (Carlisle, PA, USA) 351
Early growth of native and exotic trees planted on degraded tropical pasture
F. Lynn Carpenter (Irvine, CA, USA), J. Doland Nichols (Lismore, Australia) and E. Sandi (San Vito, Costa Rica) 367
Stem and crown dimensions as predictors of thinning responses in a crowded tropical rainforest plantation of *Flindersia brayleyana* F. Muell.
P.L. Brown, D. Doley (Cairns, Australia and St. Lucia, Australia) and R.J. Keenan (Cairns, Australia and Kingston, Australia) 379
Soil changes and tree growth in intensively managed *Pinus radiata* in northern Spain
A. Merino, A. Fernández-López, F. Solla-Gullón (Lugo, Spain) and J.M. Edeso (Vitoria-Gasteiz, Spain) 393
Impacts of scatter-hoarding rodents on restoration of oil tea *Camellia oleifera* in a fragmented forest
Z. Xiao, Z. Zhang and Y. Wang (Beijing, China) 405
Ectomycorrhizal fungal communities associated with *Salix viminalis* L. and *S. dasyclados* Wimm. clones in a short-rotation forestry plantation
Ü. Püttsepp (Uppsala, Sweden and Estonia), A. Rosling and A.F.S. Taylor (Uppsala, Sweden) 413
Effect of seed source and nursery culture on paper birch (*Betula papyrifera*) uprooting resistance and field performance
K.A. Campbell and C.D.B. Hawkins (Prince George, BC, USA) 425
Landscape distribution and characteristics of large hurricane-related canopy gaps in a southern Appalachian watershed
W. Henry McNab, C.H. Greenberg and E.C. Berg (Asheville, NC, USA) 435

Book review
Biodiversity of West African forests: an ecological atlas of woody plant species
D.M. Newbery (Bern, Switzerland) 449

Contents of *Forest Ecology and Management*, Volume 196 451